Claim Amendments

This listing of claims will replace all prior versions, and listings, of claims of the application.

Listing of Claims

Claims 1-23 (Canceled).

Claim 24 (Currently Amended): A polymer mixture, comprising:

a) a polymer matrix which is composed of:

i) a (meth)acrylate (co)polymer with a Vicat softening point (ISO 306-B50) of at least 104° C; or ~~of~~

ii) a mixture of (meth)acrylate (co)polymers with a Vicat softening point (ISO 306-B50) of at least 104° C; or ~~and/or of~~

iii) a (meth)acrylimide (co)polymer; or

iv) mixtures of a (meth)acrylimide (co)polymer (iii) with (i) or (ii);

b) an impact modifier which is based on crosslinked poly(meth)acrylates and which does not have covalent bonding to the polymer matrix a);

c) from 1 to 15 % by weight of plastics particles composed of crosslinked polymers based on polymethyl methacrylate, on polystyrene and/or on polysilicones, with a median particle size in the range from 1 to 30 μm,

wherein a), b) and c) give a total of 100 % by weight, and

wherein the polymer mixture may also comprise conventional additives, auxiliaries and/or fillers, and a test specimen injection-moulded from the polymer mixture simultaneously has the following properties:

a roughness value R_z to DIN 4768 of at least 0.7 μm;

a gloss (R 60°) to DIN 67530 of at most 40; and

a Vicat softening point (ISO 306-B50) of at least 90° C.

Claim 25 (Previously Presented): The polymer mixture according to Claim 24, wherein the components are present with the following quantitative proportions:

a) from 25 to 75 % by weight;

b) from 5 to 60 % by weight; and

c) from 1 to 15 % by weight.

Claim 26 (Previously Presented): The polymer mixture according to Claim 24, wherein the impact modifier b) has a two- or three-shell structure.

Claim 27 (Currently Amended): A polymer mixture according to Claim 24, wherein the polymer matrix a) is composed of a (meth)acrylate (co)polymer composed of ~~from~~ 96 to 100 % by weight of methyl methacrylate and ~~from~~ 0 to 4 % by weight of methyl acrylate, ethyl acrylate and/or butyl acrylate.

Claim 28 (Previously Presented): The polymer mixture according to Claim 24, wherein the polymer matrix a) is a copolymer composed of methyl methacrylate, styrene and maleic anhydride.

Claim 29 (Previously Presented): The polymer mixture according to Claim 28, wherein the polymer matrix a) is a copolymer composed of:

from 50 to 90 % by weight of methyl methacrylate;

from 10 to 20 % by weight of styrene; and

from 5 to 15 % by weight of maleic anhydride.

Claim 30 (Currently Amended): The polymer mixture according to Claim 24, wherein the constituents a) and b) of the polymer mixture are introduced individually or in the form of a compounded material which comprises the following components:

d) a low-molecular-weight (meth)acrylate (co)polymer[[;]], characterized by a solution viscosity in chloroform at 25° C (ISO 1628 – Part 6) smaller than or equal to 55 ml/g;

e) an impact modifier based on crosslinked poly(meth)acrylates;

f) a relatively high-molecular-weight (meth)acrylate (co)polymer;

characterized by a solution viscosity in chloroform at 25° C (ISO 1628 – Part 6) smaller than or equal to 65 ml/g; and/or

g) a (meth)acrylate (co)polymer other than d) characterized by a solution viscosity in chloroform at 25° C (ISO 1628 – Part 6) of ~~from~~ 50 to 55 ml/g;

wherein each of the components d), e), f) and/or g) may be an individual polymer or else a mixture of polymers,

wherein d), e), f) and/or g) give a total of 100 % by weight;

wherein the polymer mixture ~~may also comprise~~ optionally comprises conventional additives, auxiliaries and/or fillers; and

wherein a test specimen produced from the polymer mixture of components d), e), f) and/or g) simultaneously has the following properties:

a tensile modulus (ISO 527) of at least 2600 MPa;

a Vicat softening point (ISO 306-B50) of at least 109° C;

an impact strength (ISO 179-2D, flatwise) of at least 17 kJ/m^2; and

a melt index (ISO 1133, 230° C/3.8 kg) of at least 1.5 $cm^3/10$ min.

Claim 31 (Previously Presented): The polymer mixture according to Claim 30, wherein the components are present with the following quantitative proportions and give a total of 100 % by weight:

d) from 25 to 75 % by weight;

e) from 10 to 60 % by weight;

f) and/or g) from 10 to 50 % by weight.

Claim 32. (Previously Presented): The polymer mixture according to Claim 30, wherein component d) is a copolymer composed of methyl methacrylate, styrene and maleic anhydride.

Claim 33. (Currently Amended): The polymer mixture according to Claim 32, wherein component d) is a copolymer composed of:

~~from~~ 50 to 90 % by weight of methyl methacrylate;

~~from~~ 10 to 20 % by weight of styrene; and

~~from~~ 5 to 15 % by weight of maleic anhydride.

Claim 34. (Previously Presented): The polymer mixture according to Claim 30, wherein component e) has a two- or three-shell structure.

Claim 35. (Previously Presented): The polymer mixture according to Claim 30, wherein component f) is a copolymer composed of methyl methacrylate, styrene and maleic anhydride.

Claim 36. (Currently Amended) The polymer mixture according to Claim 35, wherein component f) is a copolymer composed of:

~~from~~ 50 to 90 % by weight of methyl methacrylate;

~~from~~ 10 to 20 % by weight of styrene; and

~~from~~ 5 to 15 % by weight of maleic anhydride.

Claim 37 (Currently Amended): The polymer mixture according to Claim 30, wherein component g) is a homopolymer or copolymer composed of at least 80 % by weight of methyl methacrylate and, ~~where appropriate~~ optionally, up to 20 % by weight of other monomers copolymerizable with methyl methacrylate.

Claim 38 (Currently Amended): The polymer mixture according to Claim ~~36~~ 37, wherein component g) is a copolymer composed of ~~from~~ 95 to 99.5 % by weight of methyl methacrylate and ~~from~~ 0.5 to 5 % by weight of methyl acrylate, ethyl acrylate and/or butyl acrylate.

Claim 39 (Currently Amended): The polymer mixture according to Claim 24, wherein a lubricant is present as an auxiliary.

Claim 40 (Currently Amended): The polymer mixture according to Claim 38, wherein stearyl alcohol is present as a mould-release agent.

Claim 41 (Currently Amended): The polymer mixture according to Claim 24, wherein ~~it~~ the polymer mixture takes the form of a pelletized moulding composition.

Claim 42 (Currently Amended): A process for producing an injection ~~mouldings~~ moulded article, which comprises:

~~adding~~[[,]] ~~a~~ injection molding the polymer mixture according to Claim 24 ~~as starting material in the injection mouldings~~ into the shape of an object.

Claim 43 (Currently Amended): An injection ~~moulding~~ moulded article[[,]] ~~capable of production in a~~ as prepared by the process according to Claim 42.

Claim 44 (Currently Amended): The injection moulding according to Claim 42, wherein ~~it~~ the injection moulded article has a roughness value Rz to DIN 4768 of at least 0.7 μm, a gloss (R 60°) to DIN 67530 of at most 40 and a Vicat softening point (ISO 306-B50) of at least 90° C.

Claim 45 (Currently Amended): The injection ~~moulding~~ moulded article according to Claim 42, wherein ~~it~~ the injection moulded article has one or more of the following properties:

a tensile modulus (ISO 527) of at least 2600 MPa;

a Vicat softening point (ISO 306-B50) of at least 108° C;

an impact strength (ISO 179-2D, flatwise) of at least 10 kJ/m^2; and

a melt index (ISO 1133, 230°C/3.8 kg) of at least 0.5 $cm^3/10$ min.

Claim 46 (Currently Amended): The injection ~~moulding~~ moulded article according to Claim 42, wherein the injection ~~moulding~~ moulded article is a part of a household appliance, communication device, device for hobbies or sports, or a bodywork part or a part

of bodywork parts in the construction of automobiles, ships or aircraft.

Claim 47 (New): A polymer mixture, consisting essentially of:

a) a polymer matrix which is composed of:

i) a (meth)acrylate (co)polymer with a Vicat softening point (ISO 306-B50) of at least 104° C; or

ii) a mixture of (meth)acrylate (co)polymers with a Vicat softening point (ISO 306-B50) of at least 104° C; or

iii) a (meth)acrylimide (co)polymer; or

iv) mixtures of a (meth)acrylimide (co)polymer (iii) with (i) or (ii);

b) an impact modifier which is based on crosslinked poly(meth)acrylates and which does not have covalent bonding to the polymer matrix a);

c) from 1 to 15 % by weight of plastics particles composed of crosslinked polymers based on polymethyl methacrylate, on polystyrene and/or on polysilicones, with a median particle size in the range from 1 to 30 μm,

wherein a), b) and c) give a total of 100 % by weight, and

wherein the polymer mixture may also comprise conventional additives, auxiliaries and/or fillers, and a test specimen injection-moulded from the polymer mixture simultaneously has the following properties:

a roughness value R_z to DIN 4768 of at least 0.7 μm;

a gloss (R 60°) to DIN 67530 of at most 40; and

a Vicat softening point (ISO 306-B50) of at least 90° C.